Natural Heritage & Endangered Species Program

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
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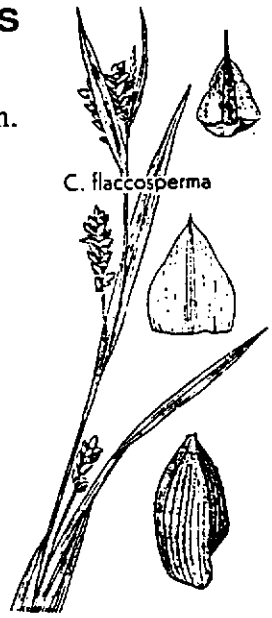
ENDANGERED SPECIES OF MASSACHUSETTS

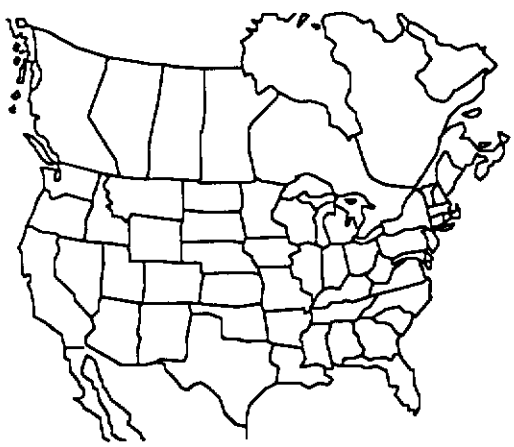
Glaucescent Sedge

Carex flaccosperma var. *glaucodea* (Tuckerman ex Olney) Kukenth.

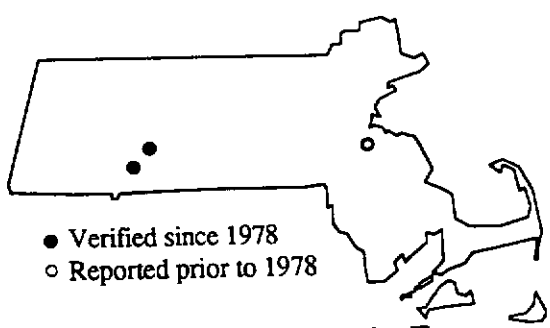


Gleason, H. A. The New Britton and Brown Illustrated Flora of the Northeastern U. S. and Adjacent Canada. New York Botanical Garden, 1952.

DESCRIPTION: Glaucescent sedge--a member of the Sedge family (Cyperaceae)--is a pale, slender, grass-like plant that grows in small loose clumps with flowering stems up to 6 dm (2 ft.) tall. Edward Tuckerman, of Amherst College, first described this variety of flaccid sedge (*Carex flaccosperma* Dewey) in the 1860s. The plant gets its common name from the glaucous, or whitish, cast to its leaves. These glaucous, green to gray-green leaves are thick, leathery and 0.4-1 cm (0.2 - 0.4 in.) in width. The single staminate, or male, spike is 1-2 cm (0.4 - 0.8 in.) long and either stalkless or short-stalked. It extends above the 2 to 4 pistillate, or female, spikes, which range from 1.5 to 4 cm (0.6 - 1.6 in.) long. The perigynia (sac-like tissues that enclose the achenes) are 3-5 mm (0.12 - 0.20 in.) long and lack the slender prolonged tips known as "beaks". (The absence of a beak and the presence of impressed (sunken) nerves on the perigynia help distinguish this sedge from other glaucous-leaved sedges.) Glaucescent sedge's leaf-like bracts extend up beyond the tops of the spikes. Its fruits mature from early June to early August.



Documented Range of Glaucescent Sedge



Massachusetts Distribution by Town

RANGE: The documented range of glaucescent sedge extends from New Hampshire, Massachusetts and southern Ontario to southern Indiana and Missouri, and south to North Carolina and Arkansas.

HABITAT IN MASSACHUSETTS: Glaucescent sedge is a plant of limy woods and meadows. It is a species that colonizes recently disturbed, seasonally moist, open to semi-open sites. It is seldom seen in deep woods where there is heavy shade or leaf litter. Natural habitat is exposed soil or moist circumneutral rock adjacent to ephemeral mountain creeks. Secondary roads, trails and other disturbances in the vicinity of natural habitat can result in dense colonies becoming established. Habitats in Massachusetts include a dry, calcareous oak/conifer forest; a mountain trailside that goes through both moist forested areas and areas of bare basalt; an old, stony roadbed that runs between a former quarry and a creek; the edges of a well-worn trail in a dry, rocky, partially open woods; and a site alongside traprock slabs and rocks on the side of a traprock mountain. Among the plant species associated with glaucescent sedge are woodland sunflower (*Helianthus divaricatus*), white wood aster (*Aster divaricatus*), deerberry (*Vaccinium stamineum*), and various sedges (*Carex* and *Scirpus* spp.), goldenrods (*Solidago* spp.), hickories (*Carya* spp.), panic grasses (*Panicum* spp.) and oaks (*Quercus* spp.)--including the northern red oak (*Quercus rubra)* and white oak (*Q. alba*). Violet wood-sorrel (*Oxalis violacea*), a species listed as "Threatened" in Massachusetts, has been found growing with glaucescent sedge.

POPULATION STATUS: Glaucescent sedge is presently listed as "Endangered" in Massachusetts. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. There are four current stations (discovered or relocated since 1978) in two towns and two historical stations (unverified since 1978) in one town in the state. The location of an additional historical station is unknown. The plant is also considered to be rare in New York and was present historically in New Hampshire.

Glaucescent sedge is not globally or nationally rare but is rare in Massachusetts because it is at the northern limit of its range and habitat is limited to specific locations in the Holyoke Range.

MANAGEMENT RECOMMENDATIONS: As with most rare plants, exact needs for management of Glaucescent sedge are not known. The following advice comes from observations of the populations in Massachusetts. Three of the four current stations of glaucescent sedge are either along trails or in an old, rocky roadbed; the remaining station is near a trail, and the two historical stations were rocky paths. This suggest that, at least in Massachusetts, canopy openings and minor soil disturbances benefit the plant. However, disturbances make it much easier for aggressive exotic plants to invade an area and possibly out-compete natives. Weedy alien species have been noted at one of the current stations of glaucescent sedge. If aggressive alien species become problems, then control of those species ought to be undertaken. Because of these potential problems with creating disturbances in an area, unless a local population is down to its last few plants, it is probably best to let natural conditions prevail. If a subpopulation is thought to be threatened or is very reduced, nearby areas might be managed to create suitable habitat and colonization encouraged. Possible beneficial manipulations are canopy opening and scarification of the soil.

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